Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No.: O-0220-16-F(R2) Plant ID: 0220

Effective Date: 2/15/2016 Expiration Date: 2/28/2021
Issue Date: 5/20/2019

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Source:	**Thornton Transportation – Louisville Terminal** **7800 Cane Run Road** **Louisville, KY 40258**	Owner:	**Thornton Transportation LLC** **7800 Cane Run Road** **Louisville, KY 40258**

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve (12) months and no later than ninety (90) days prior to the expiration date.

Emission limitations to qualify for non-major status:

Pollutant:	VOC	Total HAP	Single HAP
Tons/year:	100	25	10

Application No.: See **Related Documents** table.
Public Notice Date for Permit Revision: 04/17/2019

Permit writer: Narathip Chitradon

Air Pollution Control Officer
5/20/2019

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FEDOOP Permit Revisions/Changes

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	0066-97-F	04/22/1997	03/16/1997	Initial	Entire Permit	Initial Permit Issuance
R1	0066-97-F(R1)	04/04/2000	03/05/2000	Minor	General Conditions Pages 2-4	Incorporate revisions to General Conditions #4, #11, #12, and #13; New General Conditions #13 and #14
R2	0066-97-F(R2)	03/23/2001	11/19/2000	Admin	Entire Permit	Ownership and Name Change
R3	0066-97-F(R3)	12/16/2002	11/10/2002	Renewal	Entire Permit	Permit Renewal
R4	O-0220-16-F	02/15/2016	12/29/2015	Renewal	Entire Permit	Permit Renewal, incorporate construction permits 114-05-C, 115-05-C, 116-05-C and 34613-12-C
R5	O-0220-16-F(R1)	01/02/2019	11/28/2018	Significant	Entire Permit	Added conditions to process diesel fuel and updated General Condition 10 to remove greenhouse gas limitation
R6	O-0220-16-F(R2)	05/20/2019	04/17/2019	Admin.	Entire Permit	Ownership and Name Change

Construction Permit History

Permit No.	Issue Date	Description
114-05-C	03/15/2005	One (1) portable, horizontal, fixed-roof storage tank (aka frac tank) for temporary storage of gasoline product obtained from the terminal pipeline. Make: Rain-For-Rent; capacity; 21,000 gallons.
115-05-C	03/15/2005	One (1) vacuum truck (capacity 2520 gallons) for the transferring of gasoline from the frac tank.
116-05-C	03/15/2005	Two (2) carbon adsorption systems for collection VOC emissions. The systems are in parallel as follows: the first system controls a frac tank and the other controls the vacuum truck.

Permit No.	Issue Date	Description
34613-12-C	6/29/2012	One (1) Carbon Adsorption/Absorption Vapor Recovery Unit (Manufacturer: Jordan Technologies, Inc., Model: JT-8580-1000-1AC1000DRY) used to control the emissions from the truck loading rack.

Related Documents

Application #	Date Received	Type
APCD-00074860	01/14/2016	Certificate of Existence
APCD-00095033	10/15/2018	Application to request to process diesel fuel at Louisville terminal.
APCD-00097519	03/07/2019	Updated Administrative Information Form AP-100A in reference to ownership and name change. The updated certificate of existence is also attached.

Abbreviations and Acronyms

AP-42 - AP-42, *Compilation of Air Pollutant Emission Factors, published by U.S.EPA*
APCD - Louisville Metro Air Pollution Control District
BAC - Benchmark Ambient Concentration
BACT - Best Available Control Technology
Btu - British thermal unit
CEMS - Continuous Emission Monitoring System
CFR - Code of Federal Regulations
CO - Carbon monoxide
District - Louisville Metro Air Pollution Control District
EA - Environmental Acceptability
gal - U.S. fluid gallons
GHG - Greenhouse Gas
HAP - Hazardous Air Pollutant
HCl - Hydrogen chloride
Hg - Mercury
hr - Hour
in. - Inches
lbs - Pounds
l - Liter
LMAPCD - Louisville Metro Air Pollution Control District
mmHg - Millimeters of mercury column height
MM - Million
NAICS - North American Industry Classification System
NO_x - Nitrogen oxides
PM - Particulate Matter
PM_{10} - Particulate Matter less than 10 microns
$PM_{2.5}$ - Particulate Matter less than 2.5 microns
ppm - parts per million
PSD - Prevention of Significant Deterioration
psia - Pounds per square inch absolute
QA - Quality Assurance
RACT - Reasonably Available Control Technology
SIC - Standard Industrial Classification
SIP - State Implementation Plan
SO_2 - Sulfur dioxide
STAR - Strategic Toxic Air Reduction
TAC - Toxic Air Contaminant
UTM - Universal Transverse Mercator
VOC - Volatile Organic Compound
w.c. - Water column
year - Any period of twelve consecutive months, unless "calendar year" is specified
yr - Year, or any 12 consecutive-month period, as determined by context

Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

1. The owner or operator shall comply with all General Conditions herein and all terms and conditions in the referenced process/process equipment list.

2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District-only enforceable, and those which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.

3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.

4. The owner or operator shall submit an annual compliance certification, signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies. This certification shall include completion of District Form 9440-O.

5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.

6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.

7. The owner or operator shall provide written notification to the District, and receive approval, prior to making any changes to existing equipment or processes that would result in emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.

8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit. The filing of a request by the owner or operator for any reissuance, revision, revocation, termination, or a notification of planned changes in equipment or processes, or anticipated noncompliance shall not alter any permit requirement.

9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed either 10 tons per year, or such lesser quantity as the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or 25 tons per

year of all HAPs combined. Fugitive HAP emissions shall be included in this limit. HAPs are listed in Section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.

10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant, including particulate matter, PM_{10}, $PM_{2.5}$, sulfur dioxide, carbon monoxide, nitrogen oxides, lead, hydrogen sulfide, gaseous fluorides, total fluorides, or Volatile Organic Compounds (VOC); any pollutant subject to any standard in District Regulation 7.02; any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA. Fugitive emissions shall be included in these limits for source categories listed in District Regulation 2.16.

11. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.

12. Unless specified elsewhere in this permit, the owner or operator shall submit annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12-month totals for each pollutant that has a federally enforceable limitation on the potential to emit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All annual compliance reports shall include the statement "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete" and the signature and title of a responsible official of the company. The report must be postmarked no later than March 1 of the year following the calendar year covered in the annual report.

13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance with Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emissions Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	

Regulation	Title
	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.07	Public Notification for Title V, PSD, and Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.17	Federally Enforceable District Origin Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions

14. The owner or operator shall comply with all applicable requirements of the following District-only enforceable regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors in the Ambient Air
2.08	Fees
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption of Federal New Source Performance Standards

15. The owner or operator shall submit emission inventory reports, as required by Regulation 1.06, if so notified by the District.

16. The owner or operator shall submit timely reports of abnormal conditions or operational changes that may cause excess emissions, as required by Regulation 1.07.

17. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to:

Air Pollution Control District
Room 205
850 Barret Ave
Louisville, KY 40204-1745

Plantwide[1]: Distribution of gasoline and distillate products

Plantwide Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.05	Compliance with Emission Standards and Maintenance Requirements	1 through 5
40 CFR 63 Subpart A	General Provisions	1 through 16
40 CFR Part 63 Subpart BBBBBB	National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities	11080-11085, 11087-11089, 11092-11095, 11098-11100

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.02	Adoption of National Emission Standards for Hazardous Air Pollutants	1, 3.95 and 4
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

[1] This section consists of regulations that apply to multiple emission units found at the facility. Regulation 40 CFR Part 63 Subpart BBBBBB is applicable to the equipment found in Emission Units U1, Storage Tanks, as well as U2, Truck Loading Rack. In addition, Regulation 40 CFR Part 63 Subpart BBBBBB includes the fugitive components in gasoline service.

Plantwide Specific Conditions

S1. **Standards** (Regulation 2.17, section 5.1)

a. **VOC**

The owner or operator shall not allow or cause the plantwide emissions of VOC to equal or exceed 100 tons during any consecutive 12-month period. (Regulation 2.17, section 5.1)

b. **HAP**

i. The owner or operator shall not allow or cause the plantwide emissions of any single HAP to equal or exceed 10 tons during any consecutive 12-month period. (Regulation 2.17, section 5.1)

ii. The owner or operator shall not allow or cause the plantwide total HAP emissions to equal or exceed 25 tons during any consecutive 12-month period. (Regulation 2.17, section 5.1)

iii. The owner or operator must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance procedures and records, and inspection of the source. (40 CFR 63.11085(a))

c. **TAC**

i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.[2]
[Regulations 5.00 and 5.21]

TAC (Category 1 and 2)	Averaging Period	De Minimis (lb/hr)	De Minimis (lb/avg. period)	Risk (Rc) (per million)
Benzene	annual	0.24	216.00	0.296
Naphthalene	annual	0.016	13.92	de minimis
Toluene	annual	2,700	2,400,000	de minimis
1,2,4-trimethylbenzene	24-hour	11.00	26.40	de minimis
Xylene	annual	54.00	48,000	de minimis
Cumulative				0.296

[2] The District received an updated environmental acceptability (EA) demonstration on May 02, 2013.

ii. The owner or operator shall submit a STAR EA demonstration with the application for construction for any new or modified emission unit. The STAR EA demonstration must demonstrate compliance for all Category 1 through Category 4 TACs emitted from that emission unit as well as compliance with all other STAR goals. [Regulation 5.21, section 4.22.1]

iii. For any conditions outside the environmental acceptability analysis, including if a new TAC is introduced or the content of a TAC in a raw material increases above *de minimis*, the owner or operator shall verify and document the environmental acceptability of the revised emissions at the time of the change. Prior approval by the District is not required for a change pursuant to Regulation 5.21, section 4.22.3 if the requirements of 4.23.1 through 4.23.4 are met. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
[Regulation 5.21, Section 4]

iv. If the TAC does not have an established BAC or *de minimis* value, the owner or operator shall calculate and report these values. The form, located in Attachment A, may be used for determining BAC and *de minimis* values. [Regulation 5.20, Sections 3 and 4]

S2. **Monitoring and Record Keeping** (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

i. For plantwide VOC compliance with Regulation 1.05 *Compliance with Emission Standards and Maintenance Requirement*, the owner or operator shall utilize the AP-42 "Compilation of Air Pollution Emission Factors" document for calculating VOC emissions. (Regulation 2.17, section 5.2, Regulation 1.05 Compliance Plan, submitted August 2015)

ii. The owner or operator shall perform and keep records of the results for the follow: (Regulation 2.17, section 5.2, Regulation 1.05 Compliance Plan, submitted August 2015)

1) Tanks and Lines

(a) On a daily basis, walk through the tank field and visually inspect for any product or vapor leaks.

(b) On an annual basis, visually inspect the floating roof and tank seals on the aboveground storage tanks through the manholes or other opening.

2) Loading Rack

On a daily basis, visually inspect the loading rack equipment, piping and vapor collection system for product and vapor leaks.

3) Vapor Recovery Unit

(a) On a daily basis, visually inspect the VRU for vapor leaks.

(b) Quarterly perform preventative maintenance on the VRU.

iii. The owner or operator shall maintain records, including calculations, of their calendar month and consecutive 12-month, plantwide VOC emissions. (Regulation 2.17, section 5.2)

b. **HAP**

i. The owner or operator shall monthly maintain records, including calculations, of their calendar month and consecutive 12-month, plantwide combined and single HAP emissions. (Regulation 2.17, section 5.2)

ii. Each owner or operator of a bulk gasoline terminal, bulk plant, pipeline breakout station, or pipeline pumping station subject to the provisions of this subpart shall perform a monthly leak inspection of all equipment in gasoline service, as defined in 40 CFR 63.11100 of Subpart BBBBBB[3]. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. (40 CFR 63.11089(a))

iii. A log book shall be used and shall be signed by the owner or operator at the completion of each inspection required by 63.11089(a). A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility. For facilities electing to implement an instrument program under 40 CFR 63.11089, the record shall contain a full description of program. (40 CFR 63.11089(b) and 40 CFR 63.11094(d))

iv. Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as

[3] As defined in 40 CFR 63.11100 of Subpart BBBBBB, equipment means each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in the gasoline liquid transfer and vapor collection systems. This definition also includes the entire vapor processing system except the exhaust port(s) or stack(s).

practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak, except as provided in paragraph (d) of this section. (40 CFR 63.11089(c))

v. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report specified in 40 CFR 63.11095(b), the reason(s) why the repair was not feasible and the date each repair was completed. (40 CFR 63.11089(d))

vi. Each owner or operator of an affected source subject to equipment leak inspections under 40 CFR 63.11089 shall record in the log book for each leak that is detected the information specified in paragraphs (e)(1) through (7) of this section. (40 CFR 63.11094(e))

1) The equipment type and identification number. (40 CFR 63.11094(e)(1))

2) The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell). (40 CFR 63.11094(e)(2))

3) The date the leak was detected and the date of each attempt to repair the leak. (40 CFR 63.11094(e)(3))

4) Repair methods applied in each attempt to repair the leak. (40 CFR 63.11094(e)(4))

5) "Repair delayed" and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak, as required under 40 CFR 63.11089(c) and (d). (40 CFR 63.11094(e)(5))

6) The expected date of successful repair of the leak if the leak is not repaired within 15 days, as required under 40 CFR 63.11089(c). (40 CFR 63.11094(e)(6))

7) The date of successful repair of the leak. (40 CFR 63.11094(e)(7))

vii. Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall: (40 CFR 63.11094(f))

1) Keep an up-to-date, readily accessible record of the continuous monitoring data required under 40 CFR 63.11092(b) or 40 CFR 63.11092(e) of Subpart BBBBBB. This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred or, alternatively, shall record the operating parameter data only during such loadings. The date and time of day shall also be

indicated at reasonable intervals on this record. (40 CFR 63.11094(f)(1))

2) Record and report simultaneously with the Notification of Compliance Status required under 40 CFR 63.11093(b) of Subpart BBBBBB all data and calculations, engineering assessments, and manufacturer's recommendations used in determining the operating parameter value under 40 CFR 63.11092(b) or 40 CFR 63.11092(e) of Subpart BBBBBB: (40 CFR 63.11094(f)(2) and 40 CFR 63.11094(f)(2)(i))

3) Keep an up-to-date, readily accessible copy of the monitoring and inspection plan required under 40 CFR 63.11092(b)(1)(i)(B)(*2*) of Subpart BBBBBB. (40 CFR 63.11094(f)(3))

4) Keep an up-to-date, readily accessible record of all system malfunctions, as specified in 40 CFR 63.11092(b)(1)(i)(B)(*2*)(*v*) of Subpart BBBBBB. (40 CFR 63.11094(f)(4))

5) If an owner or operator requests approval to use a vapor processing system or monitor an operating parameter other than those specified in 40 CFR 63.11092(b) of Subpart BBBBBB, the owner or operator shall submit a description of planned reporting and recordkeeping procedures. (40 CFR 63.11094(f)(5))

viii. Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (g)(1) and (2) of this section. (40 CFR 63.11094(g))

1) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment. (40 CFR 63.11094(g)(1))

2) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.11085(a) of Subpart BBBBBB, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. (40 CFR 63.11094(g)(2))

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to, (M)SDS, analysis of emissions, and/or modeling results.

ii. If a new TAC is introduced or the content of a TAC in a raw material increases above *de minimis*, the owner or operator shall verify and

document the environmental acceptability of the revised emissions, at the time of the change.

S3. **Reporting (Regulation 2.17, section 5.2)**

a. **VOC**

i. The owner or operator shall report their calendar month and consecutive 12-month, plantwide VOC emissions. (Regulation 2.17, section 5.2)

ii. The owner or operator shall identify all periods of non-conformance with the Regulation 1.05 compliance plan during the reporting period. The report shall include the following: (Regulation 2.17, section 5.2)

1) Emission Unit ID number;

2) The date and duration (including start and end date) during which differing situation from the Regulation 1.05 compliance plan occurred;

3) The situation that occurred;

4) Summary information on the cause or reason for the situation;

5) Corrective action taken to minimize the extent and duration of each non-conforming situation;

6) Measures implemented to prevent reoccurrence of the situation that resulted in non-conformance;

iii. If no non-conforming events occurred during the reporting period, the annual compliance report shall contain a negative declaration that there were no periods of non-conformance from the Regulation 1.05 compliance plan during the reporting period.

b. **HAP**

i. The owner or operator shall report their calendar month and consecutive 12-month, plantwide combined and single HAP emissions. (Regulation 2.17, section 5.2)

ii. Each owner or operator of any affected source under this subpart must submit additional notifications specified in the General Provisions of 40 CFR 63.9 (Subpart A) as applicable. (40 CFR 63.11093(d))

iii. Each owner or operator of a bulk terminal or a pipeline breakout station subject to the control requirements of this subpart shall include in a semiannual compliance report to the Administrator the following information, as applicable: (40 CFR 63.11095(a))

1) For equipment leak inspections, the number of equipment leaks not repaired within 15 days after detection, as required under 40 CFR 63.11089(c) (40 CFR 63.11095(a)(3))

iv. Each owner or operator of an affected source subject to the control requirements of this subpart shall submit an excess emissions report to the Administrator at the time the semiannual compliance report is submitted. Excess emissions events under this subpart, and the information to be included in the excess emissions report, are specified in paragraphs (b)(1) through (5) (40 CFR 63.11095(b))

1) Each instance of a non-vapor-tight gasoline cargo tank loading at the facility in which the owner or operator failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained. (40 CFR 63.11095(b)(1))

2) Each reloading of a non-vapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with 40 CFR 63.11094(b) of Subpart BBBBBB. (40 CFR 63.11095(b)(2))

3) Each exceedance or failure to maintain, as appropriate, the monitored operating parameter value determined under 40 CFR 63.11092(b) of Subpart BBBBBB. The report shall include the monitoring data for the days on which exceedances or failures to maintain have occurred, and a description and timing of the steps taken to repair or perform maintenance on the vapor collection and processing systems or the CMS. (40 CFR 63.11095(b)(3))

4) Each instance in which malfunctions discovered during the monitoring and inspections required under 40 CFR 63.11092(b)(1)(i)(B)(*2*) and (b)(1)(iii)(B)(*2*) of Subpart BBBBBB were not resolved according to the necessary corrective actions described in the monitoring and inspection plan. The report shall include a description of the malfunction and the timing of the steps taken to correct the malfunction. (40 CFR 63.11095(b)(4))

5) For each occurrence of an equipment leak for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection, as required under 40 CFR 63.11089(c): (40 CFR 63.11095(b)(5))

(a) The date on which the leak was detected; (40 CFR 63.11095(b)(5)(i))

(b) The date of each attempt to repair the leak; (40 CFR 63.11095(b)(5)(ii))

(c) The reasons for the delay of repair; and (40 CFR 63.11095(b)(5)(iii))

(d) The date of successful repair. (40 CFR 63.11095(b)(5)(iv))

v. Each owner or operator shall submit a semiannual excess emissions report, including the information specified in paragraphs (a)(3) and (b)(5) of Subpart BBBBBB, only for a 6-month period during which an excess emission event has occurred. If no excess emission events have occurred during the previous 6-month period, no report is required. (40 CFR 63.11095(c))

vi. Each owner or operator shall submit a semiannual report including the number, duration, and a brief description of each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.11085(a) of Subpart BBBBBB, including actions taken to correct a malfunction. The report may be submitted as a part of the semiannual compliance report, if one is required. Owners or operators of affected bulk plants and pipeline pumping stations are not required to submit reports for periods during which no malfunctions occurred. (40 CFR 63.11095(d))

c. **TAC**

i. Any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration. This includes, but is not limited to, control device upset conditions.

ii. The re-evaluated EA demonstration to the District within 6 months after a change of a raw material.

Emission Unit U1: Storage Tanks

U1 Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.17	Federally Enforceable District Origin Operating Permits	All
6.13	Standard of Performance for Existing Storage Vessels for Volatile Organic Compounds	1 through 6
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	1 through 8
40 CFR Part 60 Subpart A	General Provisions	1 through 19
40 CFR Part 63 Subpart A	General Provisions	1 through 16
40 CFR Part 60 Subpart Kb	Federal New Source Performance Standards for VOC Liquid Storage Vessels	60.112(a) and 60.116(b)
40 CFR Part 63 Subpart BBBBBB	National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities	11080-11085, 11087-11089, 11092-11095, 11098-11100

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.02	Adoption of National Emission Standards for Hazardous Air Pollutants	1, 3.95 and 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

U1 Equipment:

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
E1	Gasoline Storage Tank #1, Graver Tank Co., equipped with internal floating roof (1,324,260 Gallons)	STAR* 5.14, 6.13 and 40 CFR 63 Subpart BBBBBB	N/A	S-T1	1967
E2	Distillate/Gasoline Storage Tank #2, Graver Tank Co., equipped with internal floating roof (2,399,250 Gallons)	STAR* 5.14, 6.13 and 40 CFR 63 Subpart BBBBBB	N/A	S-T2	1967
E3	Gasoline/Ethanol Storage Tank #3, Graver Tank Co., equipped with internal floating roof (650,460 Gallons)	STAR* 5.14, 6.13 and 40 CFR 63 Subpart BBBBBB	N/A	S-T3	1967
E4	Gasoline Storage Tank #4, Graver Tank Co., equipped with internal floating roof (650,160 Gallons)	STAR* 5.14, 6.13 and 40 CFR 63 Subpart BBBBBB	N/A	S-T4	1967
E5	Gasoline Storage Tank #5, Graver Tank Co., equipped with internal floating roof (884,310 Gallons)	STAR* 5.14, 7.12 and 40 CFR 63 Subpart BBBBBB	N/A	S-T5	1955
E10	Gasoline Storage Tank #7, Chicago Bridge & Iron Co. equipped with internal floating roof (3,412,080 Gallons)	STAR* 5.14, 7.12 and 40 CFR 60 Subpart Kb	N/A	S-T7	2002
E6	Gasoline Detergent Additive Storage Tank #6 (10,000 Gallons) equipped with a Reserve Tank #6A (550 Gallon) Southern Tank & Manufacturing Co.	5.14 and 7.12	N/A	S-T6 S-T6A	1980s
E9	Underground Fiberglass Storage Tank, 10,000 Gallons (containment of spills and storm water runoff form the loading rack area)	STAR* 5.14 and 7.12	N/A	S-SCUST	1980s
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.					

U1 Control Devices:

There are no control devices for Emission Unit U1.

U1 Specific Conditions

S1. **Standards** (Regulation 2.17, section 5.1)

a. **VOC**

i. See Plantwide Specific Conditions S1.a.

ii. The owner or operator shall equip Emission Points E1, E2, E3, E4, E5, E9 and E10 (Storage Tanks 1, 2, 3, 4, 5 and 7) with a floating roof, a vapor recovery system, or their equivalent. (Regulation 6.13 and Regulation 7.12, section 3.1)

iii. The owner or operator shall equip Emission Points E1, E2, E3, E4, E5, E9 and E10 (Storage Tanks 1, 2, 3, 4, 5 and 7) with a permanent submerged fill pipe.[4] (Regulation 6.13 and Regulation 7.12, section 3.3)

iv. For Emission Point E10 (Storage Tank 7), subject to Regulation 40 CFR Part 60 Subpart Kb, the owner or operator shall equip each storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications: (40 CFR 60.112b(a)(1):

1) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. (40 CFR 60.112b(a)(1)(i))

2) Each internal floating roof shall be equipped with the following closure devices between the wall of the storage vessel and the edge of the internal floating roof: (40 CFR 60.112b(a)(1)(ii))

A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof. (40 CFR 60.112b(a)(1)(ii)(C))

3) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space

[4] The District has determined that tanks equipped with internal floating roofs achieve equivalent VOC emission reduction as would be obtained by using submerged or bottom fill pipes.

vents is to provide a projection below the liquid surface. (40 CFR 60.112b(a)(1)(iii))

4) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. (40 CFR 60.112b(a)(1)(iv))

5) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. (40 CFR 60.112b(a)(1)(v))

6) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. (40 CFR 60.112b(a)(1)(vi))

7) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. (40 CFR 60.112b(a)(1)(vii))

8) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. (40 CFR 60.112b(a)(1)(viii))

9) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. (40 CFR 60.112b(a)(1)(ix))

b. **HAP**[5]

i. For Emission Points E1, E2, E3, E4, E5 and E10 (Storage Tanks 1, 2, 3, 4, 5 and 7):

1) See Plantwide Specific Conditions S1.b.

2) If the owner or operator owns or operates a gasoline storage tank with a capacity of greater than or equal to 75 m^3 and not meeting any of the criteria specified in item 1 of this Table, then you shall

[5] 40 CFR 60 Subpart XX, does not apply to this facility since it commenced operations before December 17, 1980, as stated in 40 SCR 60.500(b).

equip each internal floating roof gasoline storage tank according to the requirements in 40 CFR 60.112b(a)(1) of Subpart Kb, except for the secondary seal requirements under 40 CFR 60.112b(a)(1)(ii)(B) and the requirements in 40 CFR 60.112b(a)(1)(iv) through (ix) of Subpart Kb: (Table 1, Option 2.(b), 40 CFR 63.11087(a))

ii. For Emission Points E6 and E9, see Plantwide Specific Conditions S1.b.i and ii.

c. **TAC**

See Plantwide Specific Conditions S1.c.

S2. **Monitoring and Record Keeping** (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

i. See Plantwide Specific Conditions S2.a.

ii. The true vapor pressure shall be determined by using the average monthly storage temperature and typical Reid vapor pressure of the contained liquid or from typical available data on the contained liquid. Supporting analytical data shall be requested by the District if there is a question on the values reported. (Regulation 6.13 and Regulation 7.12, section 5.2)

iii. The owner or operator shall for Emission Points E1, E2, E3, E4, E5, E9 and E10 (Storage Tanks 1, 2, 3, 4, 5 and 7) ensure that there shall be no visible holes, tears, or other openings in the seal or any seal fabric. (Regulation 6.13 and Regulation 7.12, section 4.1)

iv. The owner or operator shall for Emission Points E1, E2, E3, E4, E5, E9 and E10 (Storage Tanks 1, 2, 3, 4, 5 and 7) ensure that all openings, except stub drains, shall be equipped with covers, lids, or seals such that: (Regulation 6.13 and Regulation 7.12, section 4.2)

a) The cover, lid, or seal is in the closed position at all times except when in actual use; and

b) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and

c) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

v. For Emission Points E1, E2, E3, E4, E5 and E10 (storage tanks 1, 2, 3, 4, 5 and 7) the owner or operator shall keep a record that shows if the storage vessel is equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank. (Regulation 6.13 and Regulation 7.12, section 2.9)

vi. For Emission Point E10 (storage tank 7) subject to 40 CFR Part 60 Subpart Kb, the owner or operator shall:

1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel. (40 CFR 60.113b(a)(1))

2) For Vessels equipped with a liquid mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30 day extension may be requested from the District in the inspection report required in the Reporting and Recordkeeping Requirements of 40 CFR 60.115b(a)(3) (Subpart Kb). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. (40 CFR 60.113b(a)(2))

3) For vessels equipped with a double seal system as specified in the Standard for VOC of 40 CFR 60.112b(a)(1)(ii)(B) (Subpart Kb): (40 CFR 60.113b(a)(3))

(a) Visually inspect the vessel according to the Testing and Procedures section of 40 CFR 60.113b(a)(4) in Subpart Kb at least every 5 years; or (40 CFR 60.113b(a)(3)(i))

(b) Visually inspect the vessel according to the Testing and Procedures section of 40 CFR 60.113b(a)(2) in Subpart Kb. (40 CFR 60.113b(a)(3)(ii))

4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in the Testing and Procedures section of 40 CFR 60.113b(a)(2) and 60.113b(a)(3)(ii) (Subpart Kb) and at intervals no greater than 5 years in the case of vessels specified in 40 CFR 60.113b(a)(4) of the same section. (40 CFR 60.113b(a)(4))

5) Notify the District in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by the Testing and Procedures section of 40 CFR 60.113b(a)(1) and 60.113b(a)(4) (Subpart Kb) in order to afford the District the opportunity to have an observer present. If the inspection required by 40 CFR 60.113b(a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the District at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the District at least 7 days prior to the refilling. (40 CFR 60.113b(a)(5))

vii. The owner or operator shall keep a record of each inspection performed as required by the Testing and Procedures section of 40 CFR 60.113b(a)(1), (a)(2), (a)(3), and (a)(4) (Subpart Kb). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the

vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). (40 CFR 60.115b(a)(2)))

viii. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. (40 CFR 60.116b(b))

ix. The owner or operator shall keep copies of all records required by the Monitoring of Operations section of 40 CFR 60.116b, except for the record required by 40 CFR 60.116b(b), for at least 2 years. The record required by 40 CFR 60.116b(b) will be kept for the life of the source. (40 CFR 60.116b(a))

x. Except as provided in 40 CFR 60.116b(f) and (g), the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. (40 CFR 60.116b(c))

b. **HAP**

i. For Emission Points E1, E2, E3, E4, E5 and E10 (Storage Tanks 1, 2, 3, 4, 5 and 7):

1) See Plantwide Specific Conditions S2.b.

2) The owner or operator shall keep records as specified in 40 CFR 60.115b of Subpart Kb, except records shall be kept for at least 5 years. (40 CFR 63.11094(a))

3) If your gasoline storage tank is equipped with an internal floating roof, you must perform inspections of the floating roof system according to the Standards of Performance for Storage Vessels requirements of 40 CFR 60.113b(a) (Subpart Kb) if you are complying with option 2(b) in Table 1 to this subpart. (40 CFR 63.11092(e)(1))

ii. For Emission Points E6 and E9 see Plantwide Specific Conditions S2.b.i.

c. **TAC**

See Plantwide Specific Condition S2.c.

S3. **Reporting** (Regulation 2.17, section 5.2)

a. **VOC**

i. See Plantwide Specific Conditions S3.a.

ii. For Emission Point E10 (storage tank 7) subject to 40 CFR Part 60 Subpart Kb:

1) If any of the conditions described in 40 CFR 60.113b(a)(2) are detected during the annual visual inspection required by 40 CFR 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. (40 CFR 60.115b(a)(3))

2) After each inspection required by 40 CFR 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR 61.112b(a)(1) or 40 CFR 60.113b(a)(3) and list each repair made. (40 CFR 60.115b(a)(4))

3) Except as provided in 40 CFR 60.116b(g), the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa shall notify the District within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. (40 CFR 60.116b(d))

b. **HAP**

i. For Emission Points E1, E2, E3, E4, E5 and E10, see Plantwide Specific Conditions S3.b.

ii. Each owner or operator of a bulk terminal or a pipeline breakout station subject to the control requirements of this subpart shall include in a semiannual compliance report to the Administrator the following information, as applicable: (40 CFR 63.11095(a))

1) For storage vessels, the information specified in the Reporting and Recordkeeping Requirements of 40 CFR 60.115b(a) of Subpart Kb,

depending upon the control equipment installed. (40 CFR 63.11095(a)(1))

2) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements. (40 CFR 60.115b(a))

(a) Furnish the District with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). (40 CFR 60.115b(a)(1))

(b) Keep a record of each inspection performed as required by §§60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). (40 CFR 63.11095(a)(2))

(c) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. (40 CFR 63.11095(a)(3))

(d) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or § 60.113b(a)(3) and list each repair made. (40 CFR 63.11095(a)(4))

iii. For Emission Points E6 and E9, see Plantwide Specific Conditions S3.b.i.

c. **TAC**

See Plantwide Specific Conditions S3.c.

Alternative Operating Scenario

Each storage tank has the possibility of storing gasoline, ethanol, additive, or distillate. For any product changes that occur, Thornton Oil Corporation shall continue to follow any applicable requirements listed under the Standards, Monitoring and Record Keeping, and Reporting sections of this permit.

Emission Unit U2: Truck Loading Rack with Control Unit

U2 Applicable Regulations:

Regulation	Title	Applicable Sections
1.04	Performance Tests	1 through 3
1.05	Compliance with Emission Standards and Maintenance Requirements	1 through 5
2.17	Federally Enforceable District Origin Operating Permits	1 through 9
5.00	Definitions	1 through 2
5.01	General Provisions	1 through 2
5.14	Hazardous Air Pollutants and Source Categories	1, 2
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 7
5.23	Categories of Toxic Air Contaminants	1 through 6
6.21	Standard of Performance for Existing Gasoline Loading Facilities at Bulk Terminals	1 through 5
6.22	Standard of Performance for Existing Volatile Organic Materials Loading Facilities	1 through 5
40 CFR Part 63 Subpart A	General Provisions	1 through 16
40 CFR 63 Subpart BBBBBB	National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities	11080-11085, 11087-11089, 11092-11095, 11098-11100

U2 Equipment:

Emission Point	Description	Applicable Regulation	Installation Date	Control ID
E11	One (1) truck loading rack for loading various distillate and gasoline products into tank trucks that utilize bottom fill	STAR*, 5.14, 6.21, 6.22, and 40 CFR 63 Subpart BBBBBB	1974	C1
* STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.				

U2 Control Devices:

Control ID	Description	Make/Model	Installation Date	Pollutant Controlled
C1	Carbon adsorption/Absorption Vapor Recovery unit (VRU) used to control from the truck loading rack	Jordon Technologies, Inc. Model JT-8580-1000-1AC1000DRY	2012	VOC

U2 Specific Conditions

S1. **Standards (Regulation 2.17, section 5.1)**

a. **VOC**

i. See Plantwide Specific Conditions S1.a.

ii. The owner or operator shall limit throughput to the following as calculated on a 12-month rolling total basis. (Regulation 2.17, section 5.1)

Product	Gallons/12-Months
Gasoline	170,000,000
Distillate	50,000,000

iii. When the VRU is offline, the truck loading rack can operate if a portable frac tank, a vacuum truck, and carbon adsorption systems are all brought into the terminal to control the truck loading operation[6]. The owner or operator shall install, operate and maintain a carbon adsorption control system to control emissions at all times when the portable frac tank and vacuum truck are in operation. (Regulation 2.17, section 5.1)

iv. The owner or operator of any loading facility shall not load gasoline unless such facility is equipped with a vapor control system, which is in good working order and in operation. (Regulation 6.21, section 3.1 and Regulation 2.17, section 5.1)

v. Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor collection system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected. (Regulation 6.21, section 3.2)

vi. The owner or operator shall not permit the volatile organic compound emissions from the vapor control device to exceed 80 milligrams per liter of gasoline loaded. (Regulation 6.21, section 3.3)

vii. The owner or operator shall not open tank hatches or allow hatches to be opened at any time during loading operations if bottom-fill is practiced. (Regulation 6.21, section 3.4)

viii. The owner or operator shall not permit gasoline to be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation. (Regulation 6.21, section 3.5)

[6] The truck loading rack at Thornton Oil Corporation automatically shuts down if there is no control device in operation.

ix. The owner or operator of a bulk gasoline terminal subject to this regulation shall not allow loading unless the following provisions are met: (Regulation 6.21, section 3.6)

1) The vapor control system and associated equipment are designed and operated to prevent gauge pressure in the tank truck or trailer from exceeding 450 mm H_2O (18 in H_2O) and prevent vacuum from exceeding 150 mm H_2O (6 in H_2O); (Regulation 6.21, section 3.6.1)

2) A pressure tap or any equivalent system as approved by the District is installed on the vapor collection system so that a liquid manometer, supplied by the owner or operator, can be connected to the tap in order to determine compliance with section 3.6.1. The pressure tap shall be installed by the owner or operator as close as possible to the connection with the tank truck or trailer, and shall consist of a 1/4 inch tubing connector which is compatible with the use of 3/16 inch inside diameter plastic tubing; (Regulation 6.21, section 3.6.2)

3) During loading operations there is no reading greater than or equal to 100% of the lower explosive limit (LEL, measured as propane) at a distance of 2.5 centimeters (one inch) from the potential leak source associated with the vapor collection system of a bulk gasoline terminal as detected by a combustible gas detector using the test procedure in Regulation 6.21, section 5.4; and (Regulation 6.21, section 3.6.3)

4) The tank truck or trailer has a valid Kentucky pressure-vacuum test sticker as required by Regulation 401 Kentucky Administrative Regulation (KAR) 51:010 attached and visibly displayed. (Regulation 6.21, section 3.6.4)

x. No owner or operator of any loading facility from which 20,000 gallons or more of volatile organic materials are loaded in any one day shall load such materials unless such facility is equipped with a device which reduces the emissions of all hydrocarbon vapors and gases by at least 90% by weight, and which is properly installed, in good working order, and in operation. Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor recovery system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected. [Regulation 6.22, section 3.2]

b. **HAP**[7]

i. See Plantwide Specific Conditions S1.b.[8]

ii. The owner or operator of a bulk gasoline terminal loading rack(s) with a gasoline throughput (total of all racks) of 250,000 gallons per day[9] or greater must meet each emission limit and management practice. (Table 2, Option 1, 40 CFR 63.11088(a))

1) Equip your loading rack(s) with a vapor collection system designed to collect the TOC vapors displaced from cargo tanks during product loading; (Table 2, Option 1.(a), 40 CFR 63.11088(a))

2) Reduce emissions of TOC to less than or equal to 80 mg/l of gasoline loaded into gasoline cargo tanks at the loading rack; (Table 2, Option 1.(b), 40 CFR 63.11088(a))

3) Design and operate the vapor collection system to prevent any TOC vapors collected at one loading rack or lane from passing through another loading rack or lane to the atmosphere; and (Table 2, Option 1.(c), 40 CFR 63.11088(a))

4) Limit the loading of gasoline into gasoline cargo tanks that are vapor tight using the procedures specified in 40 CFR 60.502(e) through (j) of Subpart XX. For the purposes of this section, the term "tank truck" as used in 40 CFR 60.502(e) through (j) of Subpart XX means "cargo tank" as defined in 40 CFR 63.11100 of Subpart BBBBBB. (Table 2, Option 1.(d), 40 CFR 63.11088(a))

5) Loading of liquid product into gasoline tank trucks shall be limited to vapor-tight gasoline tank trucks using the following procedures: (40 CFR 60.502(e) as referenced by 40 CFR 63.11088(a))

[7] 40 CFR 60 Subpart XX, does not apply to this facility since it commenced operations before December 17, 1980, as stated in 40 SCR 60.500(b).

[8] In the background information document for the proposed gasoline distribution MACT standards, the EPA profiled the HAP contents of various grades of gasoline. VOC emissions from normal gasoline (non-reformulated/oxygenated) contain an average of 4.8 percent total HAPs. Reformulated/oxygenated gasoline with MTBE contains an average of 16 percent HAPs with MTBE as the largest single HAP at 11.9 percent. Since Louisville is located in a designated reformulated gasoline region, these higher HAP to VOC ratios are appropriate for determining HAP emissions. Using the 11.9 percent single HAP number, the loading rack throughput and control device, and the total single HAP emissions would be 6.97 tons/yr. In addition, using the 16 percent total HAPs, the loading rack and control device, throughput the total combined HAP emissions would be 9.37 tons/yr. Since both emissions are below the limits of <10 tons/year for a single HAP and <25 tons/year for total combined HAPs, the company will only be required to track loading rack throughput.

[9] Gallons per day is calculated by summing the current day's throughput, plus the throughput for the previous 364 days, and then dividing that sum by 365.

(a) The owner or operator shall obtain the vapor tightness documentation described in the Reporting and Recordkeeping of 40 CFR 60.505(b) (Subpart XX) for each gasoline tank truck, which is to be loaded at the affected facility. (40 CFR 60.502(e)(1))

(b) The owner or operator shall require the tank identification number to be recorded as each gasoline tank truck is loaded at the affected facility. (40 CFR 60.502(e)(2))

(c) The owner or operator shall cross-check each tank identification number obtained in 40 CFR 502(e)(2) of Subpart XX with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded, unless either of the following conditions is maintained: (40 CFR 60.502(e)(3)(i))

i. If less than an average of one gasoline tank truck per month over the last 26 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed each quarter; or (40 CFR 60.502(e)(3)(i)(A))

ii. If less than an average of one gasoline tank truck per month over the last 52 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed semi-annually. (40 CFR 60.502(e)(3)(i)(B))

iii. If either the quarterly or semiannual cross-check provided in 40 CFR 60.502(e)(3)(i)(A) and (B) of Subpart XX reveals that these conditions were not maintained, the source must return to bi-weekly monitoring until such time as these conditions are again met. (40 CFR 60.502(e)(3)(ii))

(d) The terminal owner or operator shall notify the owner or operator of each non-vapor-tight gasoline tank truck loaded at the affected facility within 1 week of the documentation cross-check in 40 CFR 502.(e)(3) of Subpart XX. (40 CFR 60.502(e)(4))

(e) The terminal owner or operator shall take steps assuring that the non-vapor-tight gasoline truck will not be reloaded at the affected facility until vapor tightness documentation for that tank is obtained. (40 CFR 60.502(e)(5))

(f) Alternative procedures to those described in 40 CFR 502(e)(1) through (5) of Subpart XX for limiting gasoline tank truck loadings may be used upon application to, and approval by, the District. (40 CFR 60.502(e)(6))

6) The owner or operator shall act to assure that loadings of gasoline tank trucks at the affected facility are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system. (40 CFR 60.502(f) as referenced by 40 CFR 63.11088(a))

7) The owner or operator shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each loading of a gasoline tank truck at the affected facility. Examples of actions to accomplish this include training drivers in the hookup procedures and posting visible emission reminder signs at the affected loading racks. (40 CFR 60.502(g) as referenced by 40 CFR 63.11088(a))

8) The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4,500 pascals (450 mm of water) during product loading. This level is not to be exceeded when measured by the Test Methods and Procedures specified in 40 CFR 60.503(d) (Subpart XX). (40 CFR 60.502(h) as referenced by 40 CFR 63.11088(a))

9) No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 Pascal (450 mm of water). (40 CFR 60.502(i) as referenced by 40 CFR 63.11088(a))

iii. The owner or operator of a bulk gasoline terminal loading rack(s) with a gasoline throughput (total of all racks) of less than 250,000 gallons per day[10] must meet each management practice. (Table 2, Option 2, 40 CFR 63.11088(a))

1) Use submerged filling with a submerged fill pipe that is no more than 6 inches from the bottom of the cargo tank; and (Table 2, Option 2.(a), 40 CFR 63.11088(a))

2) Make records available within 24 hours of a request by the Administrator to document your gasoline throughput. (Table 2, Option 2.(b), 40 CFR 63.11088(a))

[10] Gallons per day is calculated by summing the current day's throughput, plus the throughput for the previous 364 days, and then dividing that sum by 365.

c. **TAC**

i. See Plantwide Specific Conditions S1.c.

ii. The owner or operator shall not allow Benzene emissions to exceed 183.96 lb/12-consecutive month period while loading gasoline[11]. (Regulation 5.21)

iii. The owner or operator shall control the emissions from the truck loading operation with a Vapor Recovery Unit (VRU) or using the backup alternative operating scenario during all periods of loading gasoline. (Regulation 2.17, section 5.2)

S2. **Monitoring and Record Keeping (Regulation 2.17, section 5.2)**

Records shall be readily retrievable and shall be maintained for five (5) years prior to disposal. The owner or operator shall monitor and maintain records of the following information.

a. **VOC**

i. See Plantwide Specific Conditions S2.a.

ii. For the Carbon Adsorption/Absorption Vapor Recovery Unit, (Jordan Technologies, Inc., Model JT-8580-1000-1AC1000DRY), the owner or operator shall daily monitor and record the outlet concentration of VOC. (Regulation 6.21, section 3.3)

iii. The owner or operator shall verify that all transport vehicle tank hatches are closed during the loading. (Regulation 6.21, section 3.4)

iv. The owner or operator shall verify and record once a week whether or not there are leaks from the pressure/vacuum relief valves and hatch covers of the stationary or transport vehicle tanks during loading. (Regulation 6.21, section 3.6.1)

v. The owner or operator shall verify that each tank truck or trailer, to be loaded with gasoline, shall have a valid Kentucky pressure-vacuum test sticker visibility displayed. (Regulation 6.21, section 3.6.4)

vi. The test procedure as defined in "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems" (OAQPS 1.2-119, EPA) Appendix B or an equivalent procedure approved by the

[11] The District received an environmental acceptability (EA) demonstration on May 2, 2013 that reported controlled benzene emissions for gasoline loading to be above de minimis levels. In order to demonstrate environmental acceptability, the source performed Screen 3 modeling, with a controlled annual emission rate of 183.96 lbs and noted the highest risk to be 0.296, which demonstrates that the company is below the environmental acceptability goal (EAG) of 1.0 for individual processes defined under District Regulation 5.21.

District, shall be used to determine compliance with the standard prescribed in Regulation 6.21, Section 3.6.3 during inspections conducted pursuant to KRS 77.165 or KRS 224.10-100(10). (Regulation 6.21, section 5.2)

vii. The owner or operator shall maintain monthly and consecutive 12-month total gallons of gasoline and distillate loaded. (Regulation 2.17, section 5.2)

viii. The owner or operator shall maintain records that identify all periods when the VOM (Volatile Organic Material) was not loaded according to the requirements found in District Regulation 6.22, section 3.2, including the following information. [Regulation 2.17, section 5.2]

1) Emission Unit ID number;

2) Date of occurrence;

3) Duration of occurrence (including start time and stop time)

4) The total VOC emissions during the occurrence;

5) Summary information on the cause or reason for each occurrence;

6) Corrective action taken to minimize the extent and duration of each occurrence; and

7) Measures implemented to prevent reoccurrence of the situation that resulted.

b. **HAP**

i. See Plantwide Specific Conditions S2.b.

ii. See Specific Conditions S2.a.iii, S2.a.iv and S2.a.v.

iii. Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for total organic compounds liquid or vapor leaks. For purposes of this paragraph, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected. (40 CFR 60.502(j) as referenced by 40 CFR 63.11088(a))

iv. The owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall keep records of the test results for each gasoline cargo tank loading at the facility as specified in paragraph (b)(2) and. (40 CFR 63.11094(b))

1) Annual certification testing performed under §63.11092(f)(1). (40 CFR 63.11094(b)(1))

2) The documentation file shall be kept up-to-date for each gasoline cargo tank loading at the facility. The documentation for each test shall include, as a minimum, the following information: (40 CFR 63.11094(b)(2))

(a) *Name of test:* Annual Certification Test—Method 27. (40 CFR 63.11094(b)(2)(i))

(b) Cargo tank owner's name and address. (40 CFR 63.11094(b)(2)(ii))

(c) Cargo tank identification number. (40 CFR 63.11094(b)(2)(iii))

(d) Test location and date. (40 CFR 63.11094(b)(2)(iv))

(e) Tester name and signature. (40 CFR 63.11094(b)(2)(v))

(f) *Witnessing inspector, if any:* Name, signature, and affiliation. (40 CFR 63.11094(b)(2)(vi))

(g) *Vapor tightness repair:* Nature of repair work and when performed in relation to vapor tightness testing. (40 CFR 63.11094(b)(2)(vii))

(h) *Test results:* Test pressure; pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument; and leak definition. (40 CFR 63.11094(b)(2)(viii))

v. As an alternative to keeping records at the terminal of each gasoline cargo tank test result as required in paragraph (b) of this section, an owner or operator may comply with the requirements in either paragraph (c)(1) or paragraph (c)(2) of this section. (40 CFR 63.11094(c))

3) An electronic copy of each record is instantly available at the terminal. (40 CFR 63.11094(c)(1))

(a) The copy of each record in paragraph (c)(1) of this section is an exact duplicate image of the original paper record with certifying signatures. (40 CFR 63.11094(c)(1)(i))

(b) The District is notified in writing that each terminal using this alternative is in compliance with paragraph (c)(1) of this section. (40 CFR 63.11094(c)(1)(ii))

4) For facilities that use a terminal automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (e.g., via a card lock-out system), a copy of the documentation is made available (e.g., via facsimile) for inspection by the District's delegated representatives during the course of a site visit, or within a mutually agreeable time frame. (40 CFR 63.11094(c)(2))

(a) The copy of each record in paragraph (c)(2) of this section is an exact duplicate image of the original paper record with certifying signatures. (40 CFR 63.11094(c)(2)(i))

(b) The District is notified in writing that each terminal using this alternative is in compliance with paragraph (c)(2) of this section. (40 CFR 63.11094(c)(2)(ii))

c. **TAC**

See Plantwide Specific Condition S2.c.

S3. **Reporting (Regulation 2.17, section 5.2)**

a. **VOC**

i. See Plantwide Specific Conditions S3.a.

ii. The owner or operator shall identify and report the following when there are leaks from the pressure/vacuum relief valves and hatch covers of the stationary or transport vehicle tanks during loading. (Regulation 2.17, section 5.2)

1) Emission Unit ID number;

2) Date of occurrence;

3) Duration of occurrence (including start time and stop time);

4) Summary information on the cause or reason for each occurrence;

5) Corrective action taken to minimize the extent and duration of each occurrence; and

6) Measures implemented to prevent reoccurrence of the situation that resulted.

7) If there were no deviations during the reporting period, the annual compliance report must include a statement that there were no periods of deviation of operating parameters during the reporting period.

iii. The owner or operator shall report the total monthly and consecutive 12-month throughput, in gallons, and emissions of gasoline and distillate loaded through the terminal loading rack during each calendar month in the reporting period. (Regulation 2.17, section 5.2)

iv. The owner or operator shall report all periods when the VOM (Volatile Organic Material) was not loaded according to the requirements found in District Regulation 6.22, section 3.2. [Regulation 2.17, section 5.2]

1) Emission Unit ID number;

2) Date of occurrence;

3) Duration of occurrence (including start time and stop time)

4) The total VOC emissions during the occurrence;

5) Summary information on the cause or reason for each occurrence;

6) Corrective action taken to minimize the extent and duration of each occurrence; and

7) Measures implemented to prevent reoccurrence of the situation that resulted.

8) If there were no occurrences where the loading requirements were not met during the reporting period, the annual compliance report must include a statement that there were no periods of deviation from the loading requirements of District Regulation 6.22, section 3.2 during the reporting period.

b. **HAP**

i. See Plantwide Specific Conditions S3.b.

ii. The owner or operator shall report their gasoline throughput, in gallons per day, for the annual reporting period. (Regulation 2.17, section 5.2)

iii. Each owner or operator of a bulk terminal or a pipeline breakout station subject to the control requirements of this subpart shall include in a semiannual compliance report to the Administrator the following information, as applicable: (40 CFR 63.11095(a))

For loading racks, each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility. (40 CFR 63.11095(a)(2))

c. **TAC**

i. See Plantwide Specific Conditions S3.c.

ii. See Specific Condition S3.a.ii.

S4. **Testing (Regulation 2.17, section 5.2)**

The owner or operator of any control device shall perform the following testing requirements.

a. **VOC**

There are no routine testing requirements for this pollutant.

b. **HAP**

i. Each owner or operator of an affected bulk gasoline terminal under this subpart must submit a Notification of Performance Test, as specified in the General Provisions of 40 CFR 63.9(e) (Subpart A), prior to initiating testing required by 40 CFR 63.11092(a) or 40 CFR 63.11092(b) of Subpart BBBBBB. (40 CFR 63.11093(c))

ii. The owner or operator shall perform the required stack testing on the VRU once during the permit cycle. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the compliance test, and the control device performance indicators that will be monitored during the compliance test. The compliance test plans shall be furnished to the District at least 30 days prior to the actual date of the compliance test. Attached to the permit is a Protocol Checklist for Performance Test for the information to be submitted in the protocol. (Regulation 2.17, section 5.2 and 40 CFR 60.8(a))

iii. In conducting the performance tests required in 40 CFR 60.8 of the General Provisions the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b) of the General Provisions. The three-run requirement for the Performance Tests in 40 CFR 60.8(f) of the General Provisions does not apply to this subpart. (40 CFR 60.503(a))

iv. Immediately before the performance test, the owner or operator shall use Method 21 to monitor for leakage of vapor all potential sources in the terminal's vapor collection system equipment while a gasoline tank truck is being loaded. The owner or operator shall repair all leaks with readings of 10,000 ppm (as methane) or greater before conducting the performance test. (40 CFR 60.503(b))

v. The owner or operator shall determine compliance as follows: (40 CFR 60.503(c))

1) The performance test shall be 6 hours long during which at least 300,000 liters of gasoline is loaded. If this is not possible, the test may be continued the same day until 300,000 liters of gasoline is loaded or the test may be resumed the next day with another complete 6-hour period. In the latter case, the 300,000-liter criterion need not be met. However, as much as possible, testing should be conducted during the 6-hour period in which the highest throughput normally occurs. (40 CFR 60.503(c)(1))

2) If the vapor processing system is intermittent in operation, the performance test shall begin at a reference vapor holder level and shall end at the same reference point. The test shall include at least two startups and shutdowns of the vapor processor. If this does not occur under automatically controlled operations, the system shall be manually controlled. (40 CFR 60.503(c)(2))

3) The emission rate (E) of total organic compounds shall be computed using the following equation: (40 CFR 60.503(c)(3))

$$E = K\sum_{i=1}^{n}\left(V_{esi}C_{ei}\right)/\left(L\,10^{6}\right)$$

where:

E=emission rate of total organic compounds, mg/liter of gasoline loaded.

V_{esi}=volume of air-vapor mixture exhausted at each interval "i", scm.

C_{ei}=concentration of total organic compounds at each interval "i", ppm.

L=total volume of gasoline loaded, liters.

n=number of testing intervals.

i=emission testing interval of 5 minutes.

K=density of calibration gas, 1.83×10^{6} for propane and 2.41×10^{6} for butane, mg/scm.

4) The performance test shall be conducted in intervals of 5 minutes. For each interval "i", readings from each measurement shall be recorded, and the volume exhausted (V_{esi}) and the corresponding average total organic compounds concentration (C_{ei}) shall be determined. The sampling system response time shall be considered

in determining the average total organic compounds concentration corresponding to the volume exhausted. (40 CFR 60.503(c)(4))

5) The following methods shall be used to determine the volume (V_{esi}) air-vapor mixture exhausted at each interval: (40 CFR 60.503(c)(5))

(a) Method 2B shall be used for combustion vapor processing systems. (40 CFR 60.503(c)(5)(i))

(b) Method 2A shall be used for all other vapor processing systems. (40 CFR 60.503(c)(5)(ii))

6) Method 25A or 25B shall be used for determining the total organic compounds concentration (C_{ei}) at each interval. The calibration gas shall be either propane or butane. The owner or operator may exclude the methane and ethane content in the exhaust vent by any method (e.g., Method 18) approved by the Administrator. (40 CFR 60.503(c)(6))

7) To determine the volume (L) of gasoline dispensed during the performance test period at all loading racks whose vapor emissions are controlled by the processing system being tested, terminal records or readings from gasoline dispensing meters at each loading rack shall be used. (40 CFR 60.503(c)(7))

vi. The owner or operator shall determine compliance the standard in § 60.502(h) as follows: (40 CFR 60.503(d))

1) A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), capable of measuring up to 500 mm of water gauge pressure with ±2.5 mm of water precision, shall be calibrated and installed on the terminal's vapor collection system at a pressure tap located as close as possible to the connection with the gasoline tank truck. (40 CFR 60.503(d)(1))

2) During the performance test, the pressure shall be recorded every 5 minutes while a gasoline truck is being loaded; the highest instantaneous pressure that occurs during each loading shall also be recorded. Every loading position must be tested at least once during the performance test. (40 CFR 60.503(d)(2))

vii. Each owner or operator of a bulk gasoline terminal subject to the 80 mg/l emission standard for bulk terminal gasoline loading rack(s) with a gasoline throughput of 250,000 gallons per day or greater must comply with the requirements in paragraphs (a) through (d) of this section. (40 CFR 63.11092(a))

1) Conduct a performance test on the vapor processing and collection systems according to either paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section. (40 CFR 63.11092(a)(1))

(a) Use the test methods and procedures found in 40 CFR 60.503 of Subpart XX above, except a reading of 500 parts per million shall be used to determine the level of leaks to be repaired under 40 CFR 60.503(b) of this chapter. (40 CFR 63.11092(a)(1)(i))

(b) Use alternative test methods and procedures in accordance with the alternative test method requirements in 40 CFR 63.7(f) of the General Provisions (Subpart A). (40 CFR 63.11092(a)(1)(ii))

2) If you are operating your gasoline loading rack in compliance with an enforceable State, local, or tribal rule or permit that requires your loading rack to meet an emission limit of 80 milligrams (mg), or less, per liter of gasoline loaded (mg/l), you may submit a statement by a responsible official of your facility certifying the compliance status of your loading rack in lieu of the test required under paragraph (a)(1) of this section. (40 CFR 63.11092(a)(2))

viii. Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) while gasoline vapors are displaced to the vapor processor systems, as specified in paragraphs (b)(1) through (5) of this section. For each facility conducting a performance test under paragraph (a)(1) of this section, and for each facility utilizing the provisions of paragraphs (a)(2) or (a)(3) of this section, the CMS must be installed by January 10, 2011. (40 CFR 63.11092(b))

1) For each performance test conducted under paragraph (a)(1) of this section, the owner or operator shall determine a monitored operating parameter value for the vapor processing system using the procedures specified in paragraphs (b)(1)(i) of this section. During the performance test, continuously record the operating parameter as specified under paragraphs (b)(1)(i) through (iv) of this section. Where a carbon adsorption system is used, the owner or operator shall monitor the operation of the system as specified in paragraphs (b)(1)(i)(A) or (B) of this section. (40 CFR 63.11092(b)(1) and 40 CFR 63.11092(b)(1)(i))

(a) A continuous emissions monitoring system (CEMS) capable of measuring organic compound concentration shall be

installed in the exhaust air stream. (40 CFR 63.11092(b)(1)(i)(A))

(b) As an alternative to paragraph (b)(1)(i)(A) of this section, you may choose to meet the requirements listed in paragraph (b)(1)(i)(B)(*1*) and (*2*) of this section. (40 CFR 63.11092(b)(1)(i)(B))

(i) Carbon adsorption devices shall be monitored as specified in paragraphs (b)(1)(i)(B)(*1*)(*i*),(*ii*), and (*iii*) of this section.
(40 CFR 63.11092(b)(1)(i)(B)(1))

(1) Vacuum level shall be monitored using a pressure transmitter installed in the vacuum pump suction line, with the measurements displayed on a gauge that can be visually observed. Each carbon bed shall be observed during one complete regeneration cycle on each day of operation of the loading rack to determine the maximum vacuum level achieved.
(40 CFR 63.11092(b)(1)(i)(B)(1)(i))

(2) Conduct annual testing of the carbon activity for the carbon in each carbon bed. Carbon activity shall be tested in accordance with the butane working capacity test of the American Society for Testing and Materials (ASTM) Method D 5228–92 (incorporated by reference, see 40 CFR 63.14), or by another suitable procedure as recommended by the manufacturer.
(40 CFR 63.11092(b)(1)(i)(B)(1)(ii))

(3) Conduct monthly measurements of the carbon bed outlet volatile organic compounds (VOC) concentration over the last 5 minutes of an adsorption cycle for each carbon bed, documenting the highest measured VOC concentration. Measurements shall be made using a portable analyzer, or a permanently mounted analyzer, in accordance with 40 CFR part 60, Appendix A-7, EPA Method 21 for open-ended lines.
(40 CFR 63.11092(b)(1)(i)(B)(1)(iii))

(ii) Develop and submit to the Administrator a monitoring and inspection plan that describes the owner or operator's approach for meeting the requirements in paragraphs (b)(1)(i)(B)(*2*)(*i*) through (*v*) of this section.
(40 CFR 63.11092(b)(1)(i)(B)(2))

(1) The lowest maximum required vacuum level and duration needed to assure regeneration of the carbon beds shall be determined by an engineering analysis or from the manufacturer's recommendation and shall be documented in the monitoring and inspection plan.
(40 CFR 63.11092(b)(1)(i)(B)(2)(i))

(2) The owner or operator shall verify, during each day of operation of the loading rack, the proper valve sequencing, cycle time, gasoline flow, purge air flow, and operating temperatures. Verification shall be through visual observation, or through an automated alarm or shutdown system that monitors system operation. A manual or electronic record of the start and end of a shutdown event may be used.
(40 CFR 63.11092(b)(1)(i)(B)(2)(ii))

(3) The owner or operator shall perform semi-annual preventive maintenance inspections of the carbon adsorption system, including the automated alarm or shutdown system for those units so equipped, according to the recommendations of the manufacturer of the system.
(40 CFR 63.11092(b)(1)(i)(B)(2)(iii))

(4) The monitoring plan developed under paragraph (*2*) of this section shall specify conditions that would be considered malfunctions of the carbon adsorption system during the inspections or automated monitoring performed under paragraphs (b)(1)(i)(B)(*2*)(*i*) through (*iii*) of this section, describe specific corrective actions that will be taken to correct any malfunction, and define what the owner or operator would

consider to be a timely repair for each potential malfunction.
(40 CFR 63.11092(b)(1)(i)(B)(2)(iv))

(5) The owner or operator shall document the maximum vacuum level observed on each carbon bed from each daily inspection and the maximum VOC concentration observed from each carbon bed on each monthly inspection as well as any system malfunction, as defined in the monitoring and inspection plan, and any activation of the automated alarm or shutdown system with a written entry into a log book or other permanent form of record. Such record shall also include a description of the corrective action taken and whether such corrective actions were taken in a timely manner, as defined in the monitoring and inspection plan, as well as an estimate of the amount of gasoline loaded during the period of the malfunction.
(40 CFR 63.11092(b)(1)(i)(B)(2)(v))

2) Determine an operating parameter value based on the parameter data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations. (40 CFR 63.11092(b)(3))

3) Provide for the Administrator's approval the rationale for the selected operating parameter value, monitoring frequency, and averaging time, including data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the emission standard in 40 CFR 63.11088(a). (40 CFR 63.11092(b)(4))

4) If the owner or operator has chosen to comply with the performance testing alternatives provided under paragraph (a)(2) or paragraph (a)(3) of this section, the monitored operating parameter value may be determined according to the provisions in paragraph (b)(5)(i) or paragraph (b)(5)(ii) of this section. (40 CFR 63.11092(b)(5))

(a) Monitor an operating parameter that has been approved by the Administrator and is specified in your facility's current enforceable operating permit. At the time that the Administrator requires a new performance test, you must determine the monitored operating parameter value

according to the requirements specified in paragraph (b) of this section. (40 CFR 63.11092(b)(5)(i))

(b) Determine an operating parameter value based on engineering assessment and the manufacturer's recommendation and submit the information specified in paragraph (b)(4) of this section for approval by the Administrator. At the time that the Administrator requires a new performance test, you must determine the monitored operating parameter value according to the requirements specified in paragraph (b) of this section. (40 CFR 63.11092(b)(5)(ii))

ix. For performance tests performed after the initial test required under paragraph (a) of this section, the owner or operator shall document the reasons for any change in the operating parameter value since the previous performance test. (40 CFR 63.11092(c))

x. Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall comply with the requirements in paragraphs (d)(1) through (4) of this section. (40 CFR 63.11092(d))

1) Operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the operating parameter value for the parameters described in paragraph (b)(1) of this section. (40 CFR 63.11092(d)(1))

2) In cases where an alternative parameter pursuant to paragraph (b)(1)(iv) or paragraph (b)(5)(i) of this section is approved, each owner or operator shall operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the alternative operating parameter value. (40 CFR 63.11092(d)(2))

3) Operation of the vapor processing system in a manner exceeding or going below the operating parameter value, as appropriate, shall constitute a violation of the emission standard in 40 CFR 63.11088(a) (Subpart BBBBBB), except as specified in paragraph (d)(4) of this section. (40 CFR 63.11092(d)(3))

4) For the monitoring and inspection, as required under paragraphs (b)(1)(i)(B)(*2*) and (b)(1)(iii)(B)(*2*) of this section, malfunctions that are discovered shall not constitute a violation of the emission standard in 40 CFR 63.11088(a) (Subpart BBBBBB) if corrective actions as described in the monitoring and inspection plan are followed. The owner or operator must: (40 CFR 63.11092(d)(4))

(a) Initiate corrective action to determine the cause of the problem within 1 hour; (40 CFR 63.11092(d)(4)(i))

(b) Initiate corrective action to fix the problem within 24 hours; (40 CFR 63.11092(d)(4)(ii))

(c) Complete all corrective actions needed to fix the problem as soon as practicable consistent with good air pollution control practices for minimizing emissions; (40 CFR 63.11092(d)(4)(iii))

(d) Minimize periods of start-up, shutdown, or malfunction; and (40 CFR 63.11092(d)(4)(iv))

(e) Take any necessary corrective actions to restore normal operation and prevent the recurrence of the cause of the problem. (40 CFR 63.11092(d)(4)(v))

xi. The annual certification test for gasoline cargo tanks shall consist of the test methods specified in paragraphs (f)(1) of this section. Affected facilities that are subject to subpart XX of 40 CFR Part 60 may elect, after notification to the subpart XX delegated authority, to comply with paragraphs (f)(1) of this section. (40 CFR 63.11092(f))

EPA Method 27, Appendix A–8, 40 CFR part 60. Conduct the test using a time period (t) for the pressure and vacuum tests of 5 minutes. The initial pressure (P_i) for the pressure test shall be 460 millimeters (mm) of water (18 inches of water), gauge. The initial vacuum (V_i) for the vacuum test shall be 150 mm of water (6 inches of water), gauge. The maximum allowable pressure and vacuum changes (Δ p, Δ v) for all affected gasoline cargo tanks is 3 inches of water, or less, in 5 minutes. (40 CFR 63.11092(f)(1))

xii. *Conduct of performance tests*. Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator, based on representative performance (*i.e.*, performance based on normal operating conditions) of the affected source. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. (40 CFR 63.11092(g))

c. **TAC**

There are no routine testing requirements for this pollutant.

Alternative Operating Scenario

The owner or operator is authorized to rent and bring onsite one (1) vacuum truck, one (1) portable, horizontal, fixed-roof storage (FRAC) tank, and two (2) carbon adsorption systems for temporary use. The equipment will be brought on-site during extended time periods of downtime/malfunction

of the existing vapor recovery unit (VRU) and emergency power failures at the terminal[12]. Gasoline is obtained from the terminal pipeline and stored in the one (1) portable FRAC tank. Gasoline is transferred from the FRAC tank and into the tanker truck via one (1) vacuum truck. The product in the tanker truck then gets delivered to the designated gasoline stations. VOC emissions/vapors are collected through the two (2) carbon adsorption systems—one operates and collects emissions from the FRAC tank and the other operates and collects emissions from the vacuum truck. The facility shall continue to calculate emissions from this equipment to ensure compliance is maintained.

[12] The truck loading rack at Thornton Oil Corporation automatically shuts down if there is no control device in operation; therefore loading will not occur during any periods of downtime/malfunction of the VRU.

Off-Permit Documents

A Regulation 1.05 Compliance Plan referenced in this permit was submitted on August 3, 2015.

Insignificant Activities

Equipment	Quantity	Regulation Basis
Portable, horizontal, fixed-roof storage tank (FRAC tank) for temporary storage of gasoline product obtained from the terminal pipeline. This is brought in during times when the VRU or the electric power goes down.	1	Regulation 1.02, sec. 1.38.1.1
Vacuum truck for the transferring of gasoline from the frac tank to the tank trucks. This is brought in during times when the VRU or the electric power goes down.	1	Regulation 1.02, sec. 1.38.1.1
Carbon adsorption systems running in parallel as follows: the first controls the FRAC tank and the other controls the vacuum tank. This is brought in during times when the VRU or the electric power goes down.	2	Regulation 1.02, sec. 1.38.1.1

1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.

2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.

3) The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.

4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

5) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.

6) The District has determined that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

Attachment A – Determination of Benchmark Ambient Concentration (BAC)

Category _____ Number _____

Compound name _____ CAS No. _____

Molecular weight _____

BAC_C = _____ µg/m³, annual BAC_{NC} = _____ µg/m³, _____ (avg period)

de minimis _____ lb/hr; _____ lb/_____; _____ lb/year

I. Carcinogen Risk - BAC_C (annual averaging period) Carcinogen ☐ YES ☐ NO

1. ☐ IRIS 10^{-6} risk = _____ µg/m³ URE = _____ $(µg/m^3)^{-1}$ Date _____
2. ☐ Cal 10^{-6} risk = _____ µg/m³ IUR = _____ $(µg/m^3)^{-1}$ Date _____
3. ☐ Mich 10^{-6} risk = _____ µg/m³ Date _____
4. ☐ NTP Part A ☐ YES ☐ NO Part B ☐ YES ☐ NO
5. ☐ IARC Group 1 ☐ YES ☐ NO Group 2A ☐ YES ☐ NO Group 2B ☐ YES ☐ NO
6. ☐ ATSDR
7. ☐ Sec. 3.3.4 Method # _____ 10^{-6} risk = _____ µg/m³ Date _____
8. ☐ Default 0.0004 µg/m³

II. Chronic Noncancer Risk - BAC_{NC} (averaging period as specified)

1. ☐ IRIS RfC = _____ µg/m³, annual Date _____
2. ☐ Cal REL = _____ µg/m³, annual Date _____
3. ☐ IRIS [1] RfD = _____ µg/kg/day × (70/20) = _____ µg/m³, annual Date _____
4. ☐ Mich ITSL = _____ µg/m³, _____ averaging period Date _____
5. ☐ TLV NIOSH = _____ µg/m³ × 0.01 = _____ µg/m³, 8-hour Date _____
6. ☐ RTECS [1] _____ = _____ µg/m³, annual Date _____
   (describe calculation from Reg 5.20, sections 4.6 - 4.10)
7. ☐ Default 0.004 µg/m³

[1] To use data based upon an oral route of exposure, the District must make an affirmative determination that data are not available to indicate that oral-route to inhalation-route extrapolation is inappropriate.

III. *De minimis calculations*

1. ☐ Carcinogen BAC_C _____ µg/m³ × 0.54 = _____ lb/hour
   BAC_C _____ µg/m³ × 480 = _____ lb/year

2. ☐ Chronic Noncancer Risk _____ (averaging period)
   BAC_{NC} _____ µg/m³ × F factor = _____ lb/(avg period)

BAC averaging period	F factor for avg period			
	Annual	24 hour	8 hour	1 hour
Annual	480			0.54
24 hours		0.12		0.05
8 hours			0.02	0.02
1 hour				0.001

[Regulation 5.22, table 1]

Prepared by _____ Date _____

Attachment B - Protocol Checklist for a Performance Test

A completed protocol should include the following information:

- ☐ 1. Facility name, location, and ID #;
- ☐ 2. Responsible Official and environmental contact names;
- ☐ 3. Permit numbers that are requiring the test to be conducted;
- ☐ 4. Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
- ☐ 5. Alternative test methods or description of modifications to the test methods to be used;
- ☐ 6. Purpose of the test including equipment and pollutant to be tested; the purpose may be described in the permit that requires the test to be conducted or may be to show compliance with a federal regulation or emission standard;
- ☐ 7. Tentative test dates (These may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation.);
- ☐ 8. Maximum rated production capacity of the system;
- ☐ 9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate, based on limits);
- ☐ 10.Method to be used for determining rate of production during the performance test;
- ☐ 11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
- ☐ 12. Description of normal operation cycles;
- ☐ 13. Discussion of operating conditions that tend to cause worse case emissions; it is especially important to clarify this if worst case emissions do not come from the maximum production rate;
- ☐ 14. Process flow diagram;
- ☐ 15. The type and manufacturer of the control equipment, if any;
- ☐ 16. The control equipment (baghouse, scrubber, condenser, etc.) parameter to be monitored and recorded during the performance test. Note that this data will be used to ensure representative operation during subsequent operations. These parameters can include pressure drops, flow rates, pH, and temperature. The values achieved during the test may be required during subsequent operations to describe what pressure drops, etcetera, are indicative of good operating performance; and
- ☐ 17. How quality assurance and accuracy of the data will be maintained, including;
    - Sample identification and chain-of-custody procedures
    - If audit samples are required for this test method, audit sample provider and number of audit samples to be used
- ☐ 18. Pipe, duct, stack, or flue diameter to be tested;
- ☐ 19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
- ☐ 20. Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
    - Method 1 if stack diameter is >12"
    - Method 1a if stack diameter is greater than or equal to 4" and less than 12"
    - Alternate method of determination for <4"
    - If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Method 1, Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.
- ☐ 21. The Stack Test Review fee shall be submitted with each stack test protocol.